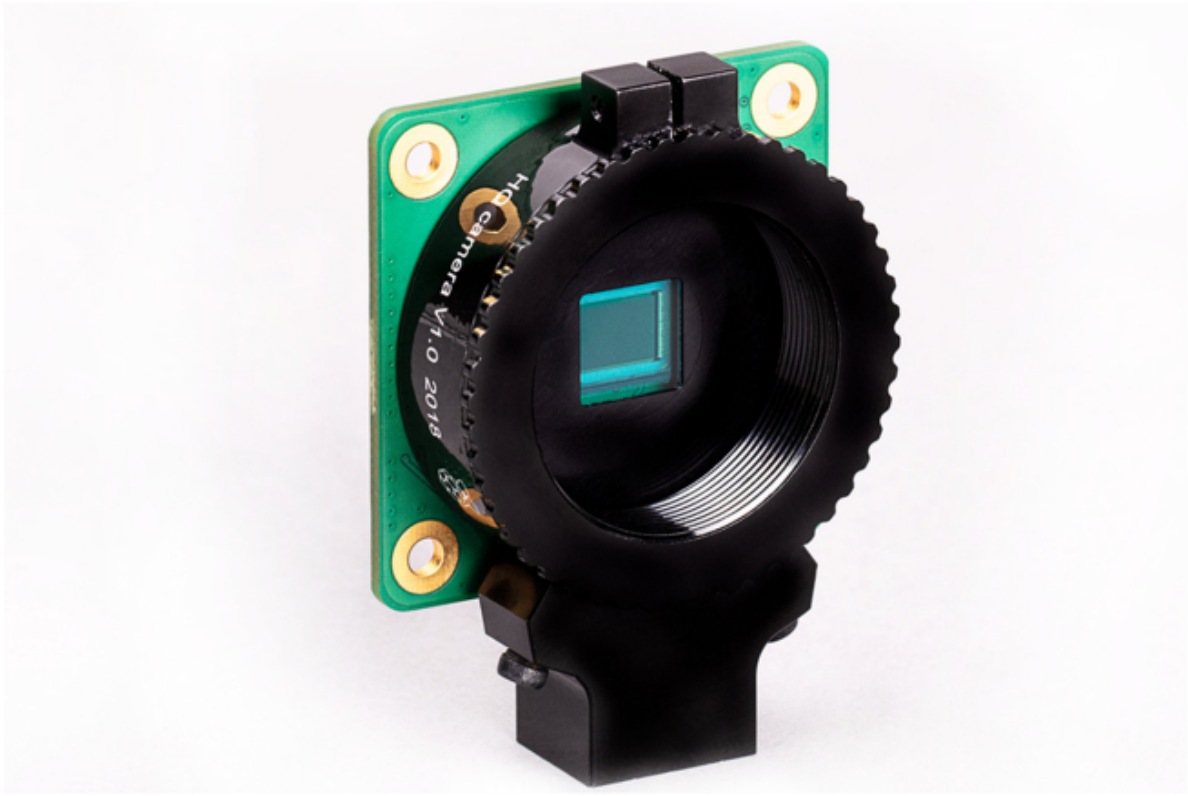
Raspberry Pi High Quality Camera – 12.3 Megapixel (Sony IMX477)



SKU
101990642

The Raspberry Pi High Quality Camera is the latest camera accessory from Raspberry Pi. It offers higher resolution (12 megapixels, compared to 8 megapixels), and sensitivity (approximately 50% greater area per pixel for improved low-light performance) than the existing Camera Module v2, and is designed to work with interchangeable lenses in both C- and CS-mount form factors.

PRODUCT DETAILS

Features

- 12.3-Megapixel high-resolution Sony IMX477 sensor
- 1.55µm × 1.55µm Pixel Size – double the pixel area of IMX219 for improved low-light performance
- Back-illuminated sensor architecture for improved sensitivity
- Support for different C- and CS-mount lenses
- Integrated back-focus adjustment ring and tripod mount

Description

If you want to use a camera in your Raspberry Pi based projects, the highest quality camera which is available right now is the Raspberry Pi Camera Module V2.

However, Raspberry Pi just released their latest version of the camera module with an impressive 12.3-megapixel high-resolution camera compared to the 8-megapixel camera on the Camera Module V2 and we are very excited to bring it to you.

This camera has a higher sensitivity than the existing Camera Module v2 with a pixel size of 1.55µm × 1.55µm which is double the pixel area of IMX219 found on the Camera Module V2 and this can result in improved low-light performance.

The Raspberry Pi High Quality Camera is designed to accept CS-mount lenses, and, with the supplied adapter, it can support C-mount lenses as well.

The High Quality camera provides an alternative to the Camera Module v2 for industrial and consumer applications, including security cameras, which require the highest levels of visual fidelity and/or integration with specialized optics.

If you want to mount this camera on a tripod, we offer two different tripods for this camera: a mini tripod and a tripod with adjustable height.

How Is This New Camera Different From The Previously Released Ones?

You can refer to the table below to have an in-depth comparison between the Raspberry Pi Camera Modules.

	Camera Module v1	Camera Module v2	High Quality Camera
Still resolution	5 Megapixels	5 Megapixels	12.3 Megapixels
Video modes	1080p@30fps 720p@60fps 640×480@60/90fps	1080p@30fps 720p@60fps 640×480p60/90fps	1080p@30fps 720p@60fps 640×480p@60/90fps
Sensor	OmniVision OV5647	Sony IMX219	Sony IMX477
Sensor resolution	2592 × 1944 pixels	3280 × 2464 pixels	4056 x 3040 pixels
Sensor image area	3.76 × 2.74 mm	3.68 x 2.76 mm (4.6 mm diagonal)	6.287mm x 4.712 mm (7.9mm diagonal)

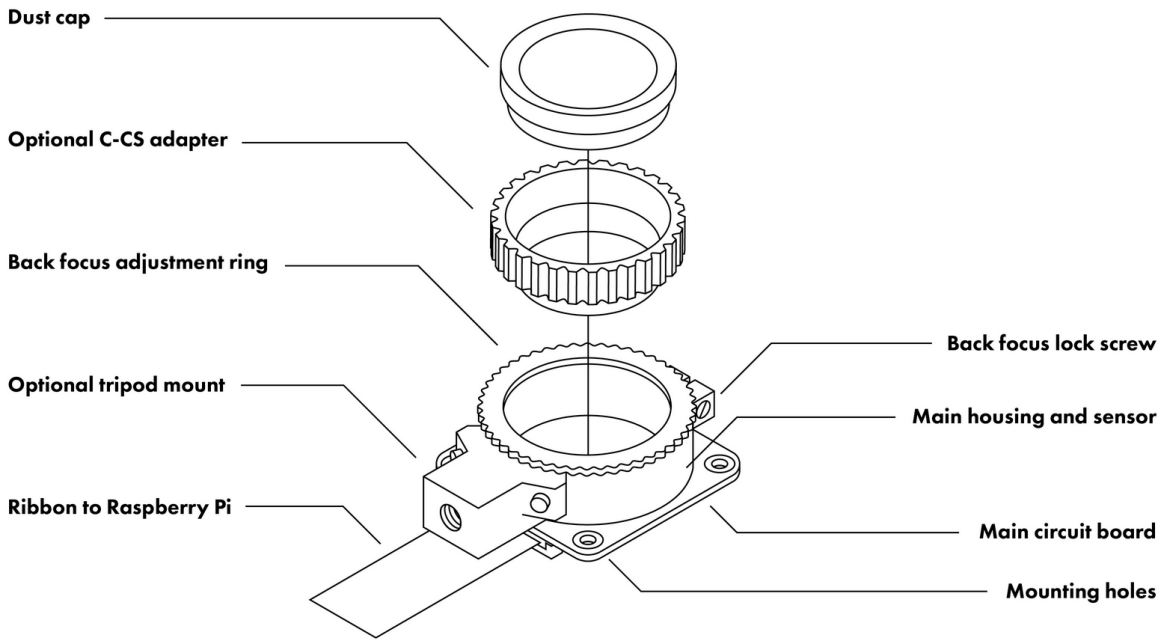
	Camera Module v1	Camera Module v2	High Quality Camera
Pixel size	1.4 µm × 1.4 µm	1.12 µm x 1.12 µm	1.55 µm x 1.55 µm
Focal length	3.60 mm +/- 0.01	3.04 mm	depends on lens
Horizontal field of view	53.50 +/- 0.13 degrees	62.2 degrees	depends on lens
Vertical field of view	41.41 +/- 0.11 degrees	48.8 degrees	depends on lens
Focal ratio (F-Stop)	2.9	2.0	depends on lens
Size	25 × 24 × 9 mm	25 x 23 x 9mm	38 x 38 x 18.4mm (excluding lens)
Price	$29.90	$29.95	$50

Specifications

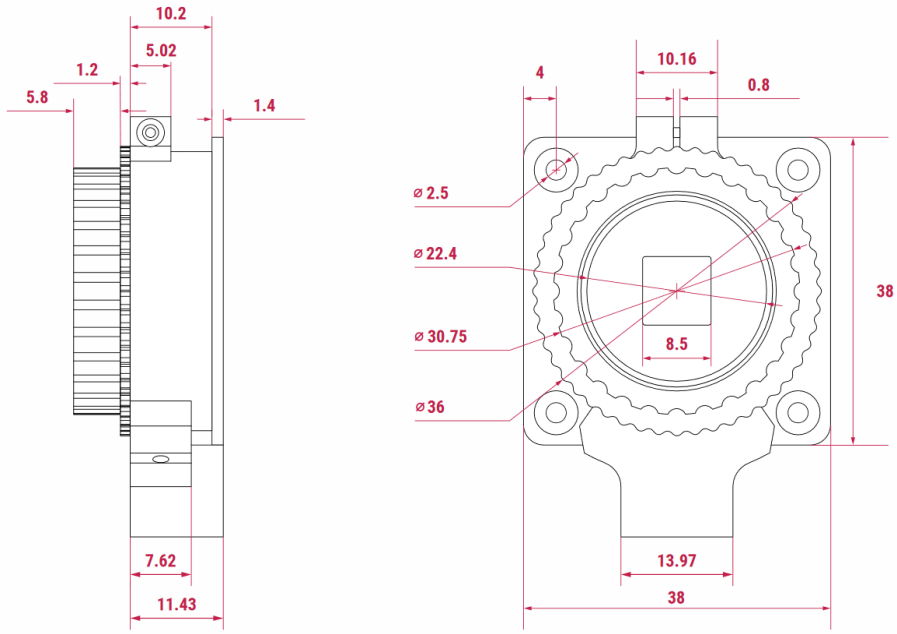
Sensor	**Sony IMX477R stacked, back-illuminated sensor**
	12.3 megapixels
	7.9 mm sensor diagonal
	1.55 µm × 1.55 µm pixel size
Output	RAW12/10/8, COMP8
Back focus	Adjustable (12.5 mm–22.4 mm)
Lens standards	CS-mount
	C-mount (C-CS adapter included)
IR cut filter	Integrated
Ribbon cable length	200 mm
Tripod mount	1/4”-20
Compliance	FCC 47 CFR Part 15, Subpart B, Class B Digital Device
	Electromagnetic Compatibility Directive (EMC) 2014/30/EU
	Restriction of Hazardous Substances (RoHS) Directive 2011/65/EU

Production Lifetime	The Raspberry Pi High Quality Camera will remain in production until at least January 2026

Hardware Overview



Dimensions



All dimensions are in mm.

Parts List

- 1 x Raspberry Pi High Quality Camera
- 1 x C-mount to CS-mount adapter

- 1 x Dust Cap
- 1 x 200mm Ribbon Cable
- 1 x Back focus adjustment tool

ECCN/HTS

HSCODE	8525801390
UPC	